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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/764,820	01/26/2004	Michael R. Rice	8092/Y01	6886

41161 7590 05/04/2007
DUGAN & DUGAN, PC
55 SOUTH BROADWAY
TARRYTOWN, NY 10591

EXAMINER

GREENHUT, CHARLES N

ART UNIT	PAPER NUMBER
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3652

MAIL DATE	DELIVERY MODE
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05/04/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/764,820	Applicant(s) RICE ET AL.	
	Examiner Charles N. Greenhut	Art Unit 3652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3, 6-9, 13, -14, 16, 19-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3, 6-9, 13, -14, 16, 19-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>3/21/07</u> . | 6) <input type="checkbox"/> Other: _____ |

I. Request for Continued Examination

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/5/07 has been entered.

II. Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claim(s) 1, 3, 6-9, 13 is/are rejected under 35 U.S.C. 102(b) as being anticipated by WANG (US 5,035,389 A).

- 1.1. With respect to claim(s) 1, WANG discloses an overhead transfer flange (10) having a first side and wider second side with third and forth sides extending therebetween (trapezoidal shape – Col. 2 Li. 14-15), the third and forth sides having blades (11) extending in non-parallel paths between the first (top) and second (bottom) sides.
- 1.2. With respect to claim(s) 3, it is well-known that the wedge angle may be of varying degree, for example about 60° (See e.g., Fig. 12).
- 1.3. With respect to claim(s) 6-8, 13 WANG additionally discloses a blunted (e.g., at 111) and radiused (e.g., at 112) edge that is angled.

1.4. With respect to claim(s) 9, WANG additionally discloses the flange (10) coupled (e.g., Fig. 6A) to a substrate carrier body (5).

2. Claim(s) 14, 16, 19, 21-24 is/are rejected under 35 U.S.C. 102(b) as being anticipated by JONES (US 2,588,009 A).

2.1. With respect to claim(s) 14, 19, 21-23, JONES discloses an overhead carrier support (6) adapted to support a substrate carrier via an overhead transfer flange, the overhead carrier support having a first and wider second side, a third and forth side extending therebetween (trapezoidal shape - Col. 1 Li. 51-52), the third and fourth sides are angled and have channels (7/8) extending in non-parallel paths from the first to second sides.

2.2. Claim(s) 16 is/are rejected under 35 U.S.C. 102(b) as being anticipated by JONES or in the alternative by JONES in view of WANG as discussed below.

2.3. With respect to claim(s) 24, JONES discloses a substrate carrier body (3/4), an overhead transfer flange (9) coupled to the carrier body (Fig. 3), adapted to couple with an overhead carrier support, the flange having a first side and wider second side with third and forth sides extending therebetween (trapezoidal shape - Col. 2 Li. 5-6), the third and forth sides having blades (10/11) extending in non-parallel paths between the first and second sides, an overhead carrier support (6), adapted to suspend a substrate carrier via an overhead transfer flange, the overhead carrier support having a first and wider second side, a third and forth side extending therebetween (trapezoidal shape - Col. 1 Li. 51-52) adapted to receive the respective third and fourth side of the flange, and coupling the flange and support (Fig. 3).

III. Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claim(s) 16, 20 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over JONES in view of WANG

1.1. With respect to claim(s) 16, 20, JONES does not disclose an angle of about 60° between the third and fourth side. It is well-known that the wedge angle may be of varying degree, for example about 60° (See e.g., WANG Fig. 12). It would have been obvious to one having ordinary skill in the art to make the orient the third and forth side of JONES at the appropriate angle based on the desired degree of wedge force and misalignment compensation.

2. Claim(s) 25-26 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over JONES in view of STROMBERG (US 2,008,087 A).

2.1. With respect to claim(s) 25, JONES additionally discloses raising a top of the flange (9) above a bottom of the support (6). JONES fails to disclose lowering the flange into engagement with the support. This limitation is not met simply because JONES reverses the fixed and stationary parts. It is well-known that the interlocking components of wedge like couplings may be reversed so that the carrier portion is fixed while the flange moves. For example, STROMBERG discloses lowering the flange (14) into the carrier (15). It would have been obvious to one having ordinary

skill in the art to modify JONES with the flange/carrier movement of STROMBERG based on which parts are better suited for movement.

2.2. With respect to claim(s) 26, JONES additionally discloses a footprint of the flange overlapping a footprint of the carrier

3. Claim(s) 27-28 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over JONES in view of PERLOV (US 6,283,692 B1).

3.1. With respect to claim(s) 27-28, JONES fails to teach the coupling member (6)/(9) used in conjunction with an overhead conveyor or storage shelf. It is well-known in the art complimentary flange and carrier coupling members may be used in conjunction with an overhead conveyor and storage rack. For example, PERLOV teaches a flange (116) engaged by a complimentary carrier (72) coupled to an overhead conveyor (56) which is coupled to a storage shelf (58). It would have been obvious to one having ordinary skill in the art to employ the coupling components of JONES on the conveyor and shelves of PERLOV in order to compensate for misalignments during engagement of the flange and carrier.

IV. Response to Applicant's Arguments

Applicant's arguments entered 2/5/07 have been fully considered.


1. Applicant has, by amendment, overcome the rejections set forth previously. Upon further consideration however, a new grounds for rejection is presented above.

V. Conclusion

Art Unit: 3652

1. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles N. Greenhut whose telephone number is (571) 272-1517. The examiner can normally be reached on 7:30am - 4:00pm EST.
2. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen D. Lillis can be reached on (571) 272-6928. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.
3. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CG


PATRICK MACKEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600